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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,237	03/09/2004	Ron Frim	LUZZATTO 3.0-105 DIV	2158

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EXAMINER

BROOKS, KRISTIE LATRICE

ART UNIT	PAPER NUMBER
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1609

MAIL DATE	DELIVERY MODE
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05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,237

Applicant(s)

FRIM, RON

Examiner

Kristie L. Brooks

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/14/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Status of Application

1. Claims 1-28 are pending.

Specification

2. The abstract of the disclosure is objected to because it is not descriptive enough of the invention and the abstract should be between 50-150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112, 1st

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1, and 3-28 are is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a stabilized composition comprising said propargyl bromide in combination with an azeotropic solvent mixture for diluting said propargyl bromide and reducing the effects of shock and temperature sensitivity on the composition throughout the life cycle of said propargyl bromide, does not reasonably provide enablement for preventing shock or temperature sensitivity throughout the life cycle of said propargyl bromide. The specification does not enable any person skilled in

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the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). Among these factors are: 1) scope or breadth of the claims; 2) nature of the invention; 3) relative level of skill possessed by one of ordinary skill in the art; 4) state of, or the amount of knowledge in, the prior art; 5) level or degree of predictability, or a lack thereof, in the art; 6) amount of guidance or direction provided by the inventor; 7) presence or absence of working examples; and 8) quantity of experimentation required to make and use the claimed invention based upon the content of the supporting disclosure. When the above factors are weighed, it is the Examiner's position that one skilled in the art could not practice the invention without undue experimentation.

1) Scope or breadth of the claims

The claims are broader in scope than the enabling disclosure. The specification merely discloses, a stabilized composition comprising said propargyl bromide in combination with an azeotropic solvent mixture for diluting said propargyl bromide. However, Applicant is purporting to have a composition capable of preventing shock and temperature sensitivity throughout the life cycle of said propargyl bromide.

2) Nature of the invention

The nature of the invention is directed to a stabilized composition comprising said propargyl bromide in combination with an azeotropic solvent mixture for diluting said propargyl bromide and preventing shock and temperature sensitivity throughout the life cycle of said propargyl bromide.

3) Relative level of skill possessed by one of ordinary skill in the art

The relative level of skill possessed by one of ordinary skill in the art of medical research is relatively high, as a majority of lead investigators directing scientific research and development in this particular technological area possess an Ph.D. in a scientific discipline such as organic synthetic chemistry, polymer chemistry, medicinal chemistry, biochemistry, pharmacology, biology or the like.

4) State of, or the amount of knowledge in, the prior art

The art teaches propargyl stabilized against shock or thermal decomposition by use of an inert solvent to form an azetrope with propargyl bromide (Magin et al. US 6,777,375).

5) Level or degree of predictability, or a lack thereof, in the art

The art teaches that propargyl bromide underwent development as an alternative fumigant to methyl bromide in the early 1960's but was abandoned due to shock sensitivity and it posed a hazard as an explosive. A fair amount of effort has been spent developing the data necessary to register the compound as a soil fumigant with the US

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EPA and there seems to be promising results with a variety of crops. However more development is needed and safety issues and the existence of other alternatives have discouraged development at the present time (page 102, section 3.2; Ruzo, Pest Management Science, 2006, 62, 99-113). Thus, there is a lack of predictability as disclosed in the art. Furthermore, there is no current data that provides a composition capable of successfully prevents shock and temperature sensitivity.

6) Amount of guidance or direction provided by the inventor

Applicant was required to provide in the specification additional guidance and direction with respect to how to use the claimed subject matter in order for the application to be enabled with respect to the full scope of the claimed invention. Although the instant specification discloses a stabilized composition comprising said propargyl bromide in combination with an azeotropic solvent mixture for diluting said propargyl bromide, it provides no guidance or direction as to preventing shock or temperature sensitivity throughout the life cycle of propargyl bromide. And in such a case where one of ordinary skill in the art is working with such a volatile substance and there is a lack of predictability in the art, the applicant must provide more direction and guidance in the specification.

7) Presence or absence of working examples and 8) Quantity of experimentation required to make and use the claimed invention based upon the content of the supporting disclosure

The specification fails to provide scientific data and working embodiments with respect to preventing shock or temperature sensitivity throughout the life cycle of propargyl bromide. The Examiner has cited art that reviews the current status of propargyl bromide in development and use and there are no clear means of prevention. Applicant has not provided clear and convincing examples on the preventing shock or temperature sensitivity throughout the life cycle of propargyl bromide.

One of ordinary skill in the art would have to conduct a myriad number of experiments where just one set of experiments would include a complete analysis of propargyl bromide keeping safety in mind and proceed to make a plurality of various different compositions of stabilized propargyl and test for there ability to prevent shock or temperature sensitivity throughout the life cycle of propargyl bromide, without any guidance as to how to prevent shock or temperature sensitivity. As a result, one of ordinary skill in the art would be required to conduct an undue amount of experimentation.

Claim Rejections - 35 USC § 112, 2nd

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2,6 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "predetermined" in claim 2,6 and 23 is a relative term which renders the claim indefinite. The term "predetermined" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 1,2,7-13,15 and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Shukbin (US 5,990,071).

The claims are drawn to stabilized composition of propargyl bromide and a method for the stabilization of propargyl bromide.

Shukbin teaches a stabilized composition comprising propargyl bromide in combination with a solvent mixture comprising C₃ to C₈ hydrocarbons, , ether and n-propyl bromide (see the entire article, especially the abstract; column 1 lines 62-67; column 3 lines 7-12). Where the n-propyl bromide will be present in the amount of 50-80%(see the entire article, especially column 3 lines 46-52), thus the prior art reference anticipates claims 1,2,7-13,15 and 22-24. It is inherent that the composition mixture of propargyl bromide and the solvents will form an azeotropic mixture because the prior art and the instant invention are composed of the same ingredients. Furthermore, the method of stabilizing the propargyl bromide is anticipated by the prior are reference because the same steps and ingredients are involved.

With respect to the art rejection above in claim 2, it is noted that the reference does not teach that the composition can be used in the manner instantly claimed, for controlling soil-born pests, however, the intended use of the claimed composition does not patentably distinguish the composition, per se, since such undisclosed use is inherent in the reference composition. In order to be limiting, the intended use must create a structural difference between the claimed composition and the prior art composition. In the instant case, the intended use does not create a structural difference, thus the intended use is not limiting.

9. Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Magin et al. (US 6,777,375).

The claims are drawn to stabilized composition of propargyl bromide and a

method for the stabilization of propargyl bromide.

Magin et al. teaches a propargyl bromide composition stabilized against shock or thermal decomposition by use with inert azeotropic solvents in the amount of less than 35 wt % of the azeotropic solvent in the liquid state and at least 20 wt % of solvent in the vapor state (see the entire article, especially the abstract; column 4 lines 17-46 and 64-67; column 5 lines 1-16; column 6 lines 18-41 and 60-65; and the examples. Where the propargyl bromide is present in the amount of 60-70 wt% and the inert azeotropic solvents include n-heptane, cyclohexane, a mixture of cyclohexane and isopropyl alcohol, mixtures of C₇₋₉ hydrocarbons, and mixtures of C₈ isoparaffinic hydrocarbons (see the entire article, especially column 4 lines 64-67; column 5 lines 1-16). The process for preparing the stabilized propargyl bromide composition is conducted at a temperature range between 10-80°C and propargyl bromide being maintained at a less than 95% concentrations during distillation (see the entire article, especially column 6 lines 18-41 and 60-65; and the examples), thus the prior art reference anticipates claims 1-28.

With respect to the art rejection above in claim 2, it is noted that the reference does not teach that the composition can be used in the manner instantly claimed, for controlling soil-born pests, however, the intended use of the claimed composition does not patentably distinguish the composition, per se, since such undisclosed use is inherent in the reference composition. In order to be limiting, the intended use must create a structural difference between the claimed composition and the prior art

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composition. In the instant case, the intended use does not create a structural difference, thus the intended use is not limiting.

Conclusion

10. No claims are allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie L. Brooks whose telephone number is (571) 272-9072. The examiner can normally be reached on M-F 8:00am-5:30pm Est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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VICKIE KIM
PRIMARY EXAMINER